

California Regional Water Quality Control Board
Santa Ana Region

June 1, 2001

ITEM: 16

SUBJECT: Consideration of Beneficial Use Assessment Work Plan for Shellfish Harvesting in Newport Bay (Resolution No. 01-59)

BACKGROUND:

On April 9, 1999, the California Regional Water Quality Control Board, Santa Ana Region (Regional Board), adopted Resolution No. 99-10, which amended the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to establish a Total Maximum Daily Load (TMDL) for fecal coliform in Newport Bay. A copy of the TMDL is attached to this report.

The objective of the fecal coliform TMDL is to address bacterial water quality problems in Newport Bay that adversely affect its beneficial uses, including water contact recreation (REC-1) and shellfish harvesting (SHEL). These problems are described in the attachment ("3. Bacterial Contamination", pages 1-2). Briefly, due to consistently high levels of total coliform bacteria, the upper portion of Upper Newport Bay (Upper Bay) has been closed to these uses since 1974. In 1978, the shellfish harvesting prohibition area was expanded to include all of the Upper Bay, and the Orange County Health Care Agency (OCHCA) generally advises against the consumption of shellfish harvested anywhere in the Bay. The bacterial objectives specified in the Basin Plan to protect shellfish harvesting activities are rarely met in the Bay. These objectives are significantly more stringent than those established to protect water contact recreation. In general, there is good compliance with the water contact recreation objectives in the summer (dry weather). However, certain areas of the Upper and Lower Bay are closed to water contact recreation on a temporary basis in response to wet weather. The Basin Plan bacterial quality objectives for both SHEL and REC-1 protection are based on fecal coliform bacteria. (It may be noted that the OCHCA, which is responsible to post areas to warn against water contact recreation and shellfish harvesting, relies on a suite of bacterial indicators to assess public health risk (total coliform, fecal coliform, *E. coli*, and enterococcus), pursuant to AB 411).

Data collected by the OCHCA demonstrate that tributary inflows, composed of urban and agricultural runoff, including stormwater, are the principal sources of coliform input to the Bay. As expected, there are more violations of bacterial standards in the Bay during wet weather, when tributary flows are higher, than in dry weather. There are few data on the exact origin of the coliform in this runoff, but sources include manure (applied to agricultural crops and commercial and residential landscaping); fecal wastes from humans, household pets and wildlife; and food wastes from restaurants.

Table 5-9f shows the fecal coliform TMDL and the wasteload allocations and load allocations assigned to the identified sources. The TMDL is the density of fecal coliform

organisms per volume of water. (It is the density of these organisms, and not their total number (or "load") that is significant with respect to the protection of beneficial uses. Thus, the TMDL is based on density rather than load.) The densities established in the TMDL are equivalent to the Basin Plan fecal coliform objectives for REC-1 and SHEL, with compliance to be achieved as soon as possible but no later than 2013 and 2019, respectively. As seen in Table 5-9f, a comparable approach is taken in specifying the wasteload and load allocations. The only exceptions are the allocations for vessel waste discharges. Wasteload allocations of zero are specified, reflecting the designation of Newport Bay as a "no discharge" harbor for vessel sanitary wastes.

Table 5-9g outlines an implementation plan leading to compliance with the TMDL and the REC-1 and SHEL water quality objectives. This plan requires that a series of tasks be implemented, resulting in the development of an updated TMDL report (Task 9). The fecal coliform TMDL requires that proposed plans be submitted to implement the tasks identified therein. It also specifies that the plans are to be implemented within specified time frames once the Regional Board approves the plans.

Orange County, the Cities within the watershed (Santa Ana, Costa Mesa, Newport Beach, Orange, Lake Forest and Tustin), The Irvine Company and agricultural operators in the watershed are responsible for fecal coliform discharges to Newport Bay. These parties are thus responsible to prepare the plans required by the TMDL and to implement them once approved by the Board. In accordance with the TMDL implementation plan (Table 5-9g, Task 3b), the County of Orange's Public Facilities & Resources Dept. (OCPF&RD) (on behalf of the Cities of Orange County) submitted a work plan for the Beneficial Use Assessment for Shellfish Harvesting in Newport Bay on March 1, 2001. A copy of this work plan is attached. The TMDL specifies that the assessment is to be completed within 13 months of Regional Board approval of the work plan.

Copies of the proposed work plan were distributed to interested parties. Comments on the proposal were requested by April 2, 2001. One comment letter was received from the Natural Resources Defense Council on that date. A copy of that letter is attached. A written response will be prepared.

Board staff has reviewed this work plan and finds that it is generally acceptable. However, we have some remaining concerns and comments, which we have discussed with OCPF&RD staff. These comments/concerns, as described in an e-mail transmission to OCPF&RD, are summarized below.

Comments on Beneficial Use Assessment for Shellfish in Newport Bay

*****Some bacterial testing should be conducted on typical shellfish samples since population size may not reflect high bacterial concentrations in the shellfish. This should be included as part of task 2 – resource survey, or included in task 4.1 with the water quality testing (depending on sites chosen for contaminant investigation). Samples of what appear to be healthy and unhealthy populations should be tested.***

Task 2 – Resource survey

****3 – Phase II –** In reference to surveying “up to ten...shellfish beds...”, a rationale is needed for limiting the number of sample beds to 10. If the number of shellfish beds found are high, then surveying 10 beds would be insufficient.

The criteria for choosing sites for Phase II should also be specified.

****4 – Phase II –** As stated above, bacterial testing should be conducted on typical shellfish samples from both healthy and unhealthy populations. (This task may be included here or as part of task 4 as long as both types of populations are tested.)

Sorting and collecting – If bivalves under 5mm are “missed”, how many does this generally include? and Does this method leave out certain species or immature bivalves of species that will otherwise be collected?

Task 3 – Beneficial Use Assessment – Shellfish Harvesting

Regarding the 2 week continuous monitoring period – it is unclear as to how many days monitoring will be conducted at each site. Also, during which season will the 2 week period occur in, and how will this 2 week period be chosen?

4 – Task 3.2 Design Exposure Data Collection Plan

Please include (in survey asking individuals whether they are harvesting shellfish for bait or consumption purposes), a question such as “Have you ever gotten sick after eating any shellfish taken from Newport Bay?” This may be useful information for future reference even though a health risk assessment is not planned for shellfish harvesting in Newport Bay.

Task 4 – Investigation of Beneficial Use Enhancement

Task 4.1 Screening Level Monitoring Investigation –

****1.** Should include analysis of both water column and sediment samples. (This will be critical data for the assessment of substrate conditions.)

2. Under “Sites to be monitored”, it seems that #2, 4 and 5 are the same – if these are different, please clarify the differences.

****3.** Under “Sites to be monitored” – there appears to be three main types of sites possible – 1. historical sites that no longer support shellfish populations, 2. sites with physical characteristics that appear to be able to support shellfish populations but do not, and 3. sites with unhealthy or sparse shellfish populations, or low diversity. However, a control site with healthy shellfish populations should also be analyzed for comparison.

****4.** Under “Sites to be monitored” – The number of sites to be monitored should be based on the number of each site “type” found in tasks 1 and 2.

Task 4.2 Pilot Scale Substrate Investigation

1. It would be prudent to have 2 study sites plus a control for quality control purposes.

Task 5 Final Report

Product – Please submit reports quarterly rather than semi-annually.

We expect that appropriate revisions to the work plan to address these concerns will be received prior to the Board meeting. If so, staff will recommend that the Board approve the work plan, as provided in Resolution No. 01-59.

OCPF&RD has requested that the schedule for completion of the shellfish harvesting beneficial use assessment be extended from 13 months to 24 months. Board staff agrees that this extension is reasonable and justified based on the comprehensive nature of the assessment proposed and the length of time that is realistically required to complete it.

RECOMMENDATION:

Adopt Resolution No. 01-59, approving the work plan for the Beneficial Use Assessment for Shellfish Harvesting in Newport Bay proposed by OCPF&RD, as revised to address Board staff concerns. Resolution No. 01-59 requires the completion of the assessment no later than June 1, 2003.

California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. 01- 59

**Resolution Approving a Work Plan for a Beneficial Use Assessment for Shellfish
Harvesting in Newport Bay**

WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. On April 9, 1999, the Regional Board adopted Resolution No. 99-10, which amended the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to incorporate a Total Maximum Daily Load (TMDL) for fecal coliform in Newport Bay. The TMDL was subsequently approved by the State Water Resources Control Board, the Office of Administrative Law, and the U.S. Environmental Protection Agency.
2. The TMDL includes a fecal coliform implementation plan and schedule (Table 5-9g). The implementation plan requires the submittal of a proposed plan to conduct a shellfish harvesting beneficial use assessment in the Bay (Task 3 (b)). The TMDL requires that the shellfish harvesting beneficial use assessment plan be implemented within 13 months after Regional Board approval of the plan.
3. The County of Orange, the Cities of Irvine, Tustin, Newport Beach, Lake Forest, Santa Ana, Orange and Costa Mesa, The Irvine Company and agricultural operators in the watershed were identified as parties responsible for fecal coliform discharges to Newport Bay.
4. In a January 7, 2000 letter to the responsible parties, the Regional Board's Executive Officer requested the submittal of the shellfish harvesting beneficial use assessment plan and other plans required by the TMDL. This request was made pursuant to the authority provided by Water Code Section 13267.
5. On behalf of the responsible parties, the Orange County Public Facilities and Resources Department (OCPF&RD) submitted a "Beneficial Use Assessment for Shellfish Harvesting in Newport Bay, Work Plan", dated March 1, 2001.
6. Staff reviewed this proposed work plan and found it generally acceptable. However, staff identified some additional comments and recommendations concerning the study design that needed to be addressed before staff could recommend approval of the work plan. These comments/recommendations were discussed with OCPF&RD staff and appropriate revisions to the work plan were submitted.
7. OCPF&RD requested that the time for completion of the assessment be extended from 13 months to 24 months. Such an extension is reasonable given the comprehensive nature of the shellfish harvesting beneficial use assessment.

NOW, THEREFORE, BE IT RESOLVED THAT:

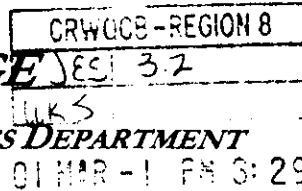
The Regional Board approves the "Beneficial Use Assessment for Shellfish Harvesting in Newport Bay, Work Plan" dated March 1, 2001, as amended by OCPF&RD. The assessment shall be completed no later than June 1, 2003.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on June 1, 2001.

Gerard J. Thibeault
Executive Officer



COUNTY OF ORANGE
PUBLIC FACILITIES & RESOURCES DEPARTMENT



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Environmental Resources
17505 Douglass Road
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Telephone: (714) 567-6363
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March 1, 2001

Ms. Joanne Schneider, Environmental Program Manager
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

SUBJECT: Work Plan – Beneficial Use Assessment for Shellfish Harvesting in Newport Bay

Dear Ms. Schneider:

The Orange County Public Facilities and Resources Department (PFRD) has received your letter dated January 7, 2000 which was sent separately to the County, The Irvine Company and the cities in the Newport Bay watershed requesting technical reports that provide plans for further study and analysis, as required by the fecal coliform TMDL.

The attached work plan addresses the beneficial use assessment to identify and quantify shellfish harvesting activities in Newport Bay and represents the collective response of the named entities. Because of the comprehensive nature of the proposed shellfish study and its duration, it is requested that the time for project completion be extended from the 13 months identified in the TMDL to 24 months

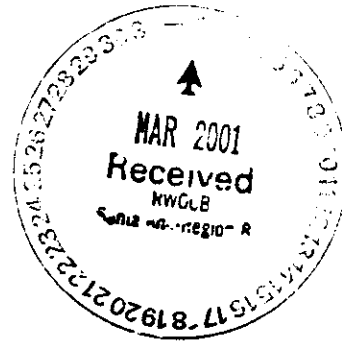
The County of Orange is committed to responding to environmental concerns within the Newport Bay watershed, many of which relate to the TMDL process. If you have any questions or comments regarding this fecal coliform TMDL response, please direct them to me at (714) 567-6360.

Very truly yours,


Chris Crompton, Manager
Environmental Resources

Attachment: Work Plan – Beneficial Use Assessment for Shellfish Harvesting in the Newport Bay Watershed

cc: Newport Bay Watershed Cities
Sat Tamaribuchi – The Irvine Company
Jim Hyde, Debra Clark - IRWD
Jeff Soller - EOA, Inc.



**Beneficial Use Assessment for Shellfish
Harvesting In Newport Bay**

Work Plan

March 1, 2001

Prepared and submitted on behalf of:

The County of Orange
and
The Cities of Irvine, Tustin, Newport Beach,
Lake Forest, Santa Ana, Orange and Costa Mesa
and The Irvine Company

Beneficial Use Assessment for Shellfish Harvesting in Newport Bay Watershed

1. Rationale

The California Regional Water Quality Control Board, Santa Ana Region (RWQCB), has identified the Lower and Upper Newport Bay as a water quality limited receiving water body which indicates that applicable water quality standards (beneficial uses and objectives) are not being attained, or expected to be attained, with the implementation of technology-based controls. Lower and Upper Newport Bay receiving waters are also included on the 1998 California 303(d) List. The 303(d) List identifies pathogens (and other pollutants) as stressors of water quality and indicates that urban runoff/storm sewers are the source of the pathogens. The RWQCB has indicated that bacterial contamination has resulted in a shellfish harvesting (SHEL) and a water contact recreation (REC-1) ban in some areas of the Newport Bay Watershed.

The State Water Resources Control Board, per the requirements of Section 303(d) and consistent with the California 303(d) List, approved on December 31, 1999, the Total Maximum Daily Load (TMDL) for fecal coliform bacteria in the Newport Bay Watershed. The TMDL is a prioritized, phased approach to the control of bacterial quality in the Bay. Waste Load Allocations (WLAs) and Load Allocations (LAs) are established in the TMDL to assure compliance with water contact recreation and shellfish standards. The TMDL is to be adjusted, as appropriate, based upon completion of specified studies. The results of the studies may lead to recommendations for changes to the TMDL to assure compliance with existing Basin Plan standards and/or for changes to the Basin Plan objectives and/or beneficial uses. Revision of the TMDL, if appropriate, would also be considered through the Basin Plan amendment process.

Work carried out to address the fecal coliform TMDL focuses on developing sufficient information for the RWQCB to balance the benefits and costs associated with ensuring the reasonable protection of beneficial uses. To date, work has focused on developing such information for water contact recreation in Newport Bay. This work has been carried out in a collaborative manner by local municipal stakeholders, the RWQCB, the Orange County Health Care Agency (HCA), and Irvine Ranch Water District (IRWD) and its consultants, EOA, Inc. and Resource Management Associates (RMA). The next step in the phased TMDL process is to address the TMDL requirements (Table 5-9g of RWQCB Resolution No.99-10) to assess shellfishing as an existing and potential beneficial use.

2. Objectives

The primary objectives of this investigation are as follows:

1. To identify historic areas of bivalve mollusk shellfishing (shellfishing) in Newport Bay and to document the degree of the beneficial use;
2. To establish the existing level of the shellfishing resource in Newport Bay;
3. To characterize current levels of shellfish collection (for consumption and bait) as a beneficial use in Newport Bay;

Francisco Bay Shellfish Program of the late 1970s and 1980s (CA RWQCB 1983a,b, 1981, 1980; CA DFG 1982; USPHS 1979; Cooper et al., 1981).

This task will include two phases. The first phase will consist of a qualitative reconnaissance survey of the entire Lower and Upper Newport Bay intertidal area to identify locations where a more detailed quantitative survey of shellfish populations is warranted. The reconnaissance survey will include visiting the entire Bay shoreline at (approximately) low tide. This reconnaissance will be carried out on foot by qualified professional staff, to identify where populations of shellfish are located and to note factors that may limit the distribution and abundance of shellfish at each of the locations (including areas of potential use that are not now used due to postings or limited access). The reconnaissance may be limited in areas where access is restricted (fences, cliffs, etc.), by access to private property, by mud and other natural impediments, and other unidentified conditions. Information on the type of substrate, shellfish observed, and any people collecting shellfish for bait or food will be recorded and pictures taken. Areas where mussels are growing on pilings and other hard surfaces will also be recorded. Particular attention should be paid to the following potential shellfish locations, which the California Department of Fish and Game has identified as easily accessible and used by fishermen:

- Back Bay road south of Big Canyon;
- Back Bay road north of Big Canyon;
- Jamboree Bridge;
- Northstar beach;
- Back Bay drive narrows; and
- 72nd place

Local Fish and Game representatives and game wardens will be contacted at the onset of the investigation to confirm the previous locations and to determine the location of any other potential shellfish collection sites.

Based on the reconnaissance survey, the second phase will consist of surveying shellfish beds or mussel growing areas in order to develop quantitative estimates of shellfish abundance and sizes for each species of shellfish encountered. Shellfish beds to be investigated will be determined based on the reconnaissance survey, and will include shellfish beds in both Lower and Upper Newport Bay. The methods used to determine the abundance of shellfish will be equivalent to the procedures used by the California Department of Fish and Game in estimating bivalve shellfish abundance in portions of San Francisco Bay (California Department of Fish and Game, 1982). A summary of those methods follows.

Transects and Quadrats

The method used will include establishing parallel transects every 200 feet along the shoreline within the bivalve bed being surveyed. Every ten feet along these transects an approximately one-square foot area will be measured using a quadrat. The transects will extend from the uppermost zone of bivalve habitat down to the water line or end of typical bivalve habitat.

approximately a twelve month period covering both dry (April through October) and wet (November through March) seasons.

The strategy employed in this task will be to identify where and when shellfish are being collected in Newport Bay, and then to quantitatively estimate the level of shellfish collection occurring in Newport Bay. The work to be carried out for this task will be divided into the following subtasks:

3.3.1 Task 3.1: Beneficial Use Site Validation

The first component of work to be carried out in this task will be to validate that shellfish are being collected at the sites identified in Tasks 1 and 2. Based on preliminary information from the Department of Fish and Game, it is anticipated that the sites shown below may be included in this task. Those sites may be augmented and modified based on the results of Tasks 1 and 2, as appropriate. If it is determined in the second phase of Task 2 that any of the investigated sites contain levels of shellfish such that a majority of the samples have no consumable shellfish, that site will not be investigated further in this task.

- Back Bay road south of Big Canyon;
- Back Bay road north of Big Canyon;
- Jamboree Bridge;
- Northstar beach;
- Back Bay drive narrows; and
- 72nd place.

An intensive two-week monitoring program will be carried out to determine if shellfishing is occurring at the specified locations. Monitoring for shellfishing activity will be carried out at each site during daylight hours from 1.5 hours prior to low tide to 1.5 hours post low tide. The goal of this screening-level effort will be to document the number of individuals collecting shellfish (or apparently attempting to collect shellfish) at each of the sites during the specified time frame.

3.3.2 Task 3.2: Design Exposure Data Collection Plan

Based on the results of Task 3.1, an experimental design will be devised to collect use assessment data for shellfishing activities (how many people engage in shellfishing activities, when, and where). A purposeful sampling program and user survey will be designed to estimate the number of individuals collecting shellfish at each of the specified sites and to characterize the percent of people collecting shellfish for bait versus for consumption. Based on information available (Fish and Game and/or game warden data or observations, etc.), a power analysis will be conducted to determine the number of sampling days required to generate the estimates described above.

In a similar use assessment conducted to characterize the REC-1 beneficial use in Newport Bay, use data were collected on a total of 35 days over a 12 month time period. It is anticipated that a similar level of effort may be required to characterize the level of shellfishing as a beneficial use

4) sites identified in task 2 as potential sites; and 5) others identified during Tasks 1 and 2. It is anticipated that approximately 3-4 sites will be monitored monthly for constituents such as those identified above, over the course of approximately 4-5 months.

3.4.2 Task 4.2: Pilot Scale Investigation to Test Suitability of Substrate

A small pilot-scale investigation will be carried out to determine the suitability of the substrate in Newport Bay for enhanced abundance levels of mussels and clams. The purpose of this subtask is to determine whether or not the substrate is the critical item limiting the current numbers of shellfish in existing Newport Bay shellfish beds. To carry out this investigation, a small scale experiment will be designed and implemented in coordination with the California Department of Fish and Game and the Upper Newport Bay Ecological Reserve. In this investigation, several of the species identified in Task 2 will be grown and monitored in Newport Bay under controlled conditions.

It is anticipated that this subtask will be carried out over a six month time frame at two sites to be identified within Newport Bay. At each location, two- 1 square meter test areas will be used to grow ~100 small clams (the exact species will be identified at a later date). In one of the test areas, the existing Newport Bay substrate will be used, in the other, an substrate considered to be excellent for the species (to be identified) will be used as a control. Clams will be monitored from each of the (4) test areas at 2,4, and 6 months for viability, size, and weight. The results of this task will be used to determine whether or not Newport Bay substrate may be suitable for enhanced levels of mussels and clams.

3.4.3 Task 4.3: Potential Impact of Environmental Controls

The goal of this subtask is to investigate whether environmental controls have the potential to facilitate increased levels of shellfish growth and collection in Newport Bay. This task will be carried out by taking advantage of an existing water quality model of Newport Bay, and extending the model as needed to investigate the impacts of a series of potential environmental controls on shellfish habitat.

An existing water quality model of Newport Bay developed by RMA was originally configured (in two dimensions) for hydrodynamic, sediment transport, and salinity simulation in support of the U.S. Army Corps of Engineers Feasibility Study. The model is currently being extended for:

1. Simulation of basic water quality parameters (i.e. temperature, dissolved oxygen, nutrients, and phytoplankton) with the support of the California State Water Resources Control Board;
2. Simulation of coliform and coliphage, supported by WERF funding as one component of the fecal coliform TMDL investigation; and
3. Simulation for salinity in 3-D to determine under what flow regimes stratification is important. This work is also being supported by the California State Water Resources Control Board.

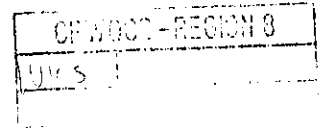
1. Gathering and summarizing relevant existing data to document the historical level of shellfish collection as a beneficial use in Newport Bay;
2. Collection of data to document the existing resource of shellfish in Newport Bay;
3. Collection of data to document the existing level of shellfish collection as a beneficial use; and
4. Collection of data to document potential enhancement sites.

4.2 Assessment/Oversight

Assessment and oversight will be provided by a review committee convened by the National Water Research Institute and by the local stakeholders. The review committee and local stakeholders will provide feedback and technical guidance to the investigators as appropriate. The review committee will also provide independent quality control over reports, recommendations, and conclusions

4.3 Data Validation and Usability

Data validation and usability will be confirmed by the review committee as part of the independent quality control assessment and oversight. Local stakeholders involved in the project will also provide feedback in this respect, as appropriate. If questions arise during the course of the investigation in terms of the validity or usability of the data, the review committee will be consulted in writing and will be asked for feedback.



NATURAL RESOURCES DEFENSE COUNCIL

April 2, 2001

Ms. Wanda K. Smith
Chief, Ocean Basin Planning Unit
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, California 92501

**Re: Agenda Item No. 27: Proposed Beneficial Use Assessment for
Shellfish Harvesting in Newport Bay**

Dear Ms. Smith:

On behalf of Defend the Bay and the Natural Resources Defense Council, we hereby submit the following comments on the proposed Beneficial Use Assessment for Shellfish Harvesting in Newport Bay ("Proposed Plan" or "proposed assessment"). We appreciate the opportunity to review and comment on the Proposed Plan.

General Comments

We have several general comments on the Proposed Plan. First and foremost, the rationale behind the proposed assessment is flawed. The stated rationale for the proposed assessment is to develop "sufficient information for the RWQCB to balance the benefits and the costs associated with ensuring the reasonable protection of beneficial uses." Proposed Plan at 1. The document also states that the results of the studies may lead to recommendations for "changes to the Basin Plan objectives and/or beneficial uses." *Id.* This is not appropriate in the context of TMDL implementation. First, TMDLs are required when water quality standards are not being attained in a waterbody. 33 U.S.C. § 1313(d). In this case, Newport Bay is impaired for pathogens for both water contact recreation and shellfishing beneficial uses. In short, the Bay is not fishable or swimmable. The federal Clean Water Act proclaims an interim national goal of achieving fishable and swimmable waters by 1983. 33 U.S.C. § 1251(a)(2); *see also In the Matter of the Petitions of the City of San Bernardino and the City of Colton*, SWRCB Order No. WQ 86-14 (August 21, 1986). The ultimate national goal is to eliminate all discharges into navigable waters. 33 U.S.C. § 1251(a). Given the importance of these national goals, it is not appropriate to delay implementing a TMDL in order to perform further studies intended to lead to "recommendations for changes to Basin Plan objectives and/or beneficial uses." Proposed Plan at 1. The purpose of the

TMDL is to attain beneficial uses set forth in the state's water quality standards, not to revisit those standards. 33 U.S.C. § 1313(d)(1)(C) ("[The TMDL] shall be established at the level necessary to implement the applicable water quality standard....").

Second, it is inappropriate in a TMDL context for the Regional Board to "balance the benefits and costs associated with ensuring the reasonable protection of beneficial uses." Proposed Plan at 1. Such an analysis is inconsistent with the requirements of the federal Clean Water Act and is not required under the Porter-Cologne Water Quality Act. For all of these reasons, we urge staff and the Board to move forward with the actual implementation of the TMDL immediately, instead of improperly and illegally delaying the TMDL until this study is completed.

Third, a TMDL cannot be delayed pending further studies and monitoring. The TMDL must be completed based on the information available. See 33 U.S.C. § 1313(d)(1)(C); *Alaska Center for the Environmental v. Reilly*, 762 F.Supp. 1422, 1429 n.8 (W.D.Wash. 1991) *aff'd* *Alaska Center for the Environmental v. Browner*, 20 F.3d 981 (9th Cir. 1994) (emphasizing importance of timely promulgation of TMDLs, even in the face of inadequate data, and quoting EPA official as saying, "No other program has such a strong statutory endorsement for action in the face of an incomplete database."); *NRDC v. Fox*, 909 F.Supp. 153, 157-58 (S.D.N.Y. 1995) (same); *Idaho Sportsmen's Coalition v. Browner*, 951 F.Supp. 962, 966 (W.D.Wash. 1996); *Sierra Club v. Hankinson*, 939 F.Supp. 865, 871 (N.D. Ga. 1996) (same). Thus, it is not proper to delay implementation, with the ultimate goal to revise the TMDL, until further studies are completed.

Finally, in order to actually remove a beneficial use listed in section 101(a)(2) of the Clean Water Act, a use attainability analysis ("UAA") must be performed. 40 C.F.R. § 131.10(j). While this appears to be the ultimate goal of the proposed assessment, a UAA is a much more rigorous process and analysis than that set forth in the Proposed Plan, particularly for a use specifically enumerated in section 101(a)(2) of the Clean Water Act, *i.e.* fishable or swimmable. In addition, such an analysis will be very expensive and time-consuming if recommended. Extensive economic analyses and EPA approval will also be required. 40 C.F.R. § 131.10(j). More importantly, it is inappropriate to de-designate uses to provide relief from water quality standards and it is entirely inappropriate in the context of implementing a TMDL. In fact, TMDLs and waste load allocations are valuable in conducting UAAs to help determine contributions from various pollutant sources. Given that the proposed assessment is not comprehensive or rigorous enough for a UAA, that the expenses involved in actually performing a UAA if one is recommended are potentially enormous, and that a UAA is not appropriate for the purpose of avoiding existing water quality standards, the resources expended on the proposed assessment would be much better utilized if allocated to more proactive activities such as source identification, characterization and reduction activities both in the Bay and upstream.

Specific Comments

We also have some specific concerns with the proposed assessment study. First, it is unclear who will be gathering the data and performing the steps outlined in the assessment. Who will be conducting the study? Similarly, the proposal contains no timeline for completing each step, or the study as a whole. The Implementation Plan requires that the study be completed within thirteen months from approval of the proposed assessment.

Second, we continue to be very concerned about the application of the RMA water quality model in this context as the model is very subjective and is rife with uncertainties that are confounded by the lack of data available. We understand that the proponents of the study also have concerns with the usefulness of this model in this context and that a determination as to the applicability of the "two-dimensional model" will be made at some point further on in the study. Proposed Plan at 8. We therefore request the opportunity to review and comment on that determination when it is made, as the model plays a critical role in evaluating impacts of environmental controls for purposes of the proposed assessment and review is not possible at this time. We would also point out that if the model is not determined to be sufficient, then an evaluation of the potential impact of various environmental controls as proposed, cannot be made. This again underscores our concern that resources could be better utilized in activities such as source identification and reduction activities in the Bay, rather than wasted on an assessment that is flawed and uncertain from the outset.

Third, we believe that the proposed pilot scale investigation to test the suitability of the substrate in the Bay to determine whether this might be a critical factor in limiting the number of shellfish in existing beds is too small to support any conclusions. *See* Proposed Plan at 7. The proposal is to look at two sites, one with natural substrate and one site with a substrate considered to be excellent for the species. A study of this size is not likely to be sufficient to "determine whether or not Newport Bay substrate may be suitable for enhanced levels of mussels and clams." Proposed Plan at 9. Similarly, the proposed screening level monitoring investigation is also based on a small number of sites (3-4 sites), which will in turn make it difficult to draw overall conclusions for the Bay. Proposed Plan at 7.

Fourth, we would like to request that a representative of Defend the Bay be included on the review committee for this study, as described in section 4.2 of the Proposed Plan. Defend the Bay is a stakeholder in this process and should be included as any other stakeholder in Newport Bay.

Conclusion

Again, we emphasize that the development of a meaningful TMDL cannot be put off pending such studies. Existing data show that Newport Bay does not meet the water quality standard for fecal coliform established to protect the shellfishing use. The Clean Water Act requires that a TMDL be established now (in fact, it is many years overdue) and implemented now to address this impairment. This proposed assessment can result only in undercutting the TMDL under the guise of implementing it. This only underscores our concern that there may be

April 2, 2001

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a lack of serious intention to rapidly implement a TMDL to protect the public against unsafe levels of pathogens in local waters. We urge staff and the Board to move forward with implementation of the current TMDL *immediately*, regardless of whether this proposed assessment is approved and moves forward.

Thank you for considering our comments. Should you have any questions, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David S. Beckman". The signature is fluid and cursive, with the first name "David" being more prominent.

David S. Beckman

Heather L. Hoecherl

cc: Robert Caustin, Founding Director, Defend the Bay